



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,905	03/25/2002	Guy Meyer	220897US6 XPCT	8940
22850	7590	10/06/2003		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER	MACARTHUR, VICTOR L
			ART UNIT	PAPER NUMBER
				3679

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/088,905	MEYER ET AL.
	Examiner Victor MacArthur	Art Unit 3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 18-31,33 and 34 is/are rejected.
- 7) Claim(s) 32 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4 and 6</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because it uses the term “isostatic”, throughout the specification, in opposition to its accepted meaning, “of equal pressure from all sides”, without clearly redefining the term. For instance how is element (64) isostatic? It appears, in figure 6, that pressures applied to element (64) would differ from top to bottom, from side to side and from front to back.

Appropriate correction is required.

### ***Claim Objections***

Claims 18-34 are objected to because of the following informalities:

- The phrase “and wherein a position and orientation of the surface of the fixed part are defined so that the force is directed between the fourth and fifth isostatic points on one hand and the sixth isostatic point on another hand” (claim 22) is unclear and should be omitted. What element is the “one hand” what element is “the other hand”?
- The phrase “in a direction of the fourth and fifth isostatic points.” (lines 2-3 of claim 33) is in disagreement with the disclosure and should be omitted. Note that in figure 6, force F1 is not directed exactly at elements 64 or 65.

Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 18-34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The terms “isostatic” and “isostatically” are used throughout the claims in opposition to the accepted meaning “of equal pressure from all sides.” For instance lines 1-2 of claim 18 state “the moving part being positioned with respect to the fixed part isostatically”. In the specification and as shown in the drawings no element is under equal pressure from all sides. In fact, moving parts 3 and 50 appear to have applied forces that differ from top, bottom, left, right, front and back sides (i.e. forces F and F1 in figure 6). It appears that the applicant intended to phrases “isostatic” and “isostatically” to simply mean “under tension” rather than “of equal pressure from all sides”.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18-31, 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hodapp U.S. Patent 3608935 (see attached marked-up copy).

Claim 18. Hodapp discloses (fig.3) a device for locking a position of a moving part with respect to a fixed part, the moving part (52) being positioned with respect to the fixed part (50) isostatically, the device comprising: means (104), for generating a force opposing a loss of contact of all of points of isostatic contact (points of contact between 52 and 50) between the moving part and the fixed part so as to lock the position. For purposes of examining the instant application, the examiner has assumed that the phrases "isostatic" and "isostatically" to mean "under tension" in order to conform to the applicants specification and drawings.

Claim 19. Hodapp discloses that to provide positioning, the device further comprises a female dovetail (beveled portion of 50 contacting 52 at 400 and 500) belonging to the fixed part and a male dovetail (beveled portion of 52 contacting 50 at 400 and 500) belonging to the moving part, wherein bases (66, 94) of the female and male dovetails are in contact and define three first isostatic points (100, 200, 300), and wherein two inclined faces (beveled portion of 50 at 400, beveled portion of 52 at 400) in contact, each belonging to one of the female and male dovetails, respectively, define fourth and fifth isostatic points.

Claim 20. Hodapp discloses that a sixth isostatic point (500) stops translation of the female and male dovetails, with respect to each other, and the isostatic point is formed between a face (portion of 50 at 500) belonging to the fixed part, which face is inclined with respect to the base of the female dovetail and distinct from the inclined faces of the female dovetail, and a point (portion of 52 at 500) of the moving part coming into abutment with this face.

Claim 21. Hodapp discloses that a direction of force (any arbitrarily chosen applied force parallel to the bases) is parallel to the bases of the female and male dovetails.

Claim 22. Hodapp discloses that the moving part has a finger (tip of 112) configured to move in translation with respect to the moving part and configured to bear against a surface of the fixed part.

Claim 23. Hodapp discloses that near a contact between the finger and the surface of the fixed part, the finger is **substantially** (but not completely) convex (curved portion of 112) and the surface (114) of the fixed part is **substantially** (but not completely) planar.

Claim 24. Hodapp discloses an elastic element (104) tending to press the finger against the surface of the fixed part in such a way that the force maintains contact of the first to sixth isostatic points.

Claim 25. Hodapp discloses that the fixed part comprises means (72) for compressing the elastic element when the moving part nears isostatic position with respect to the fixed part without any external action other than action necessary for the bringing-together being needed to compress the elastic element.

Claim 26. Hodapp discloses that translational movement of the finger with respect to the moving part is limited (via 106) in both directions of the translational movement.

Claim 27. Hodapp discloses that an orientation of the surface of the fixed part and a coefficient of friction of the finger with respect to the surface are defined such that only a force tending to compress the elastic element can move the moving part with respect to the fixed part.

Claim 28. Hodapp discloses additional means (friction contact with outer surface of 76) opposing loss of contact of the fourth and fifth isostatic points.

Claim 29. Hodapp discloses that the additional means comprises a facet (outer surface of 76) belonging to the moving part and pressing against an opposite inclined face of the female dovetail to the inclined face of the female dovetail that defines the fourth and fifth isostatic points.

Claim 30. Hodapp discloses that the facet belongs to an element (76) **configured to move** (in that 76 is removable from 60 and can be moved in any direction thereafter) in translation with respect to the moving part along an axis of translation of the finger roughly perpendicular to an axis of travel of the female and male dovetails with respect to each other, and wherein the moving element is connected to the moving part by a second elastic element (60). (element 60 is elastic, within the broadest reasonable interpretation of the claim language since it is metal and capable of recovering size and shape after deformation—albeit very slight deformation).

Claim 31. Hodapp discloses that the axis of translation of the finger is coincident with an axis of translation of the moving element (in that both 112 and 52 are inserted into 50), and wherein the second elastic element tends to separate the moving element from the finger.

Claim 33. Hodapp discloses that the moving part is unlocked with respect to the fixed part by exerting a force (600) on the moving element.

Claim 34. Hodapp discloses that a stiffness of the elastic element is greater than a stiffness of the second elastic element (in that element 104 appears to be metal or plastic where as 76 is rubber, col.2, ll.70-75).

***Allowable Subject Matter***

Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Hodapp U.S. Patent 3608935 does not disclose or suggest that the translational movement of the finger of the moving element is guided by a second female dovetail belonging to the moving part in which there slides a second male dovetail secured to the finger and a third male dovetail belonging to the moving element.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Referring to Locking devices:

- Kagayama U.S. Patent 5332183
- Kuo U.S. Patent 6338586

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (703) 305-5701. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

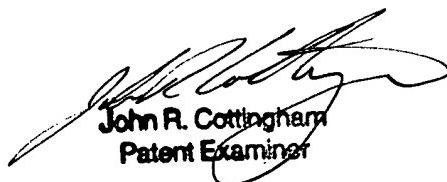
Application/Control Number: 10/088,905  
Art Unit: 3679

Page 8

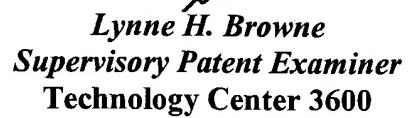
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



VLM  
September 30, 2003



John R. Cottingham  
Patent Examiner



Lynne H. Browne  
Supervisory Patent Examiner  
Technology Center 3600

Attachment: one marked-up copy of Hodapp U.S. Patent 3608935

PATENTED SEP 28 1971

3,608,935

